

## Long Endurance Flight Schemes for UAVs, Phase I

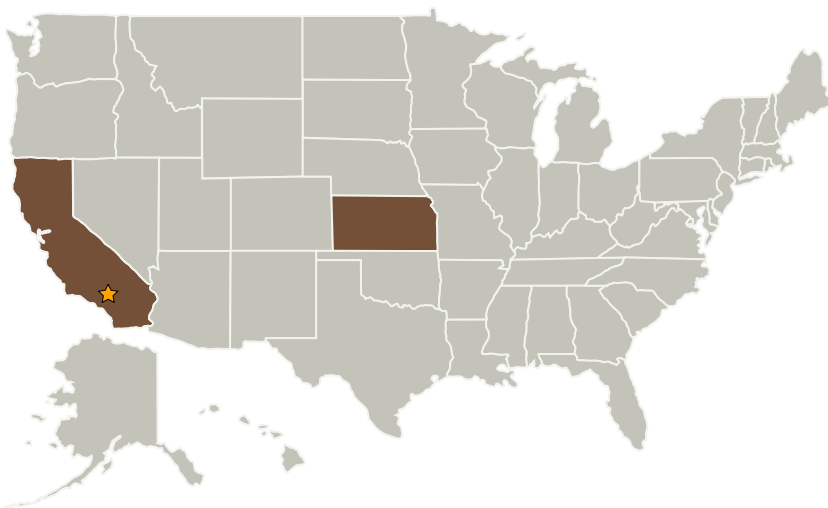
Completed Technology Project (2004 - 2004)



## Project Introduction

A method for providing endurance enhancement for unmanned aerial vehicles based on atmospheric phenomena is presented. The proposed method allows the UAV to sense certain atmospheric phenomena, and adapt itself to exploit these phenomena. The Phase I effort consists of understanding the physics of such flight, and developing the control laws for enabling the UAV to exploit these atmospheric phenomena. Flight tests are planned for Phase II, where the control laws will be further refined.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Armstrong Flight Research Center (AFRC)	Lead Organization	NASA Center	Edwards, California
Jacobs Engineering Group, Inc.	Supporting Organization	Industry	Dallas, Texas

## Primary U.S. Work Locations

California	Kansas
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## Table of Contents

Project Introduction	1
Primary U.S. Work Locations and Key Partners	1
Organizational Responsibility	1
Project Management	2
Technology Areas	2

## Organizational Responsibility

## Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

## Lead Center / Facility:

Armstrong Flight Research Center (AFRC)

## Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

**Principal Investigator:**

Tom Sherwood

## Technology Areas

**Primary:**

- TX15 Flight Vehicle Systems
  - └ TX15.1 Aerosciences
    - └ TX15.1.3 Aeroelasticity